

## ABSTRACT OF THE DISCLOSURE

A multi-layer circuit board includes first, second, third, fourth, fifth, sixth and seventh insulating substrates; first, second, third, fourth and fifth signal wiring layers; first and second ground wiring layers; and a power wiring layer. Each of the first and seventh insulating substrates has a thickness ranging from 2.5 to 6.5 mil. Each of the second, fourth and sixth insulating substrates has a thickness ranging from 3 to 9 mil. Each of the third and fifth insulating substrates has a thickness ranging from 3 to 23 mil. The first signal wiring layer has a first resistance with respect to the first ground wiring layer. The second signal wiring layer has a second resistance with respect to the first ground wiring layer and the power wiring layer. The third signal wiring layer has a third resistance with respect to the first ground wiring layer and the power wiring layer. The fourth signal wiring layer has a fourth resistance with respect to the second ground wiring layer and the power wiring layer. The fifth signal wiring layer has a fifth resistance with respect to the second ground wiring layer. The first, second, third, fourth and fifth resistances are within the range of 49.5 to 60.5 ohms.

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